coagulable ingredients without becoming rigid, and finally the protoplasm and mucilage disappear also. The plates always obliterate by the thickening of the callus layer and the narrowing of the pores. The effect of the latter change is that the mucilage lining the pores is changed into massive threads (*Cucurbita*) which become thinner and thinner until they disappear, being most likely transformed into callus. When the obliterating sieve-tubes are injured no accumulation of mucilage at the plates can be formed, because the mucilage contained in them is not fluid but rigid like caoutchouc.

The sieve-tubes are in direct communication with one another and with their accompanying cells by means of delicate threads; not, however, with the cambiform cells, which, in their turn, are connected by threads of protoplasm. J. S.

Observations on Diatomaceæ from the Neighborhood of Hertford.—Isaac Robinson. (Trans. Hertfordshire Nat. Hist. Society, vol. iv., part 7.)

The writer alludes to the fact that after a heavy rain the coloring matter of rivers often consists largely of diatoms. He also records his observations of cysts containing young diatoms in various stages of development. Appended is a list of 154 species found in Hertfordshire, mostly in the vicinity of Hertford.

C. H. K.

Botanical Notes.

Botanical Section of the Biological Society of Washington.—We have received a brief abstract of the papers delivered at the first meeting, from the Secretary. Prof. Burgess spoke on the Fresh-water Algæ, reviewed the literature of the subject, and called special attention to the work of American botanists. Prof. F. H. Knowlton followed with some remarks on "A Case of Sewer Obstruction by the Roots of Trees." Prof. S. M. Tracy described some Fungi from the Arid Regions, collected during a recent trip, including twenty-five species of *Erysiphe*. Several new *Pucciinas* and *Æcidiums* were also collected. Miss E. A. Southworth read a paper on the *Gleosporium* of the Wax Bean (*G. Lindemuthianum*), as a result of some studies carried on under the direction of Prof. F. L. Scribner.

At the second and third meetings, papers were read by Dr. Vasey, Dr. Riley, Mr. Galloway, Mr. Fernow, Mr. Crozier, Prof. Foster, Prof. Van Deman and Mr. Hopkins on various botanical topics.

Proceedings of the Club.

Owing to the severity of the storm, for the first time in its history the Club failed to hold its regular meeting. On Tuesday, March 20th, a special meeting was held, at which the president presided and thirty persons attended.

A letter from Joseph Jackson was read, giving an account of the botanical work of the Worcester Natural History Society, stating that Mr. J. Chauncey Lyford was delivering a course of lectures illustrated with lantern slides, duplicates of which he would be pleased to loan or exchange; also a letter from Miss Jane H. Newell, accompanied by pamphlets entitled "Outlines of Lessons in Botany," which she will be glad to send to any teacher who will use them and give her the benefit of the results attained, with criticisms and suggestions. Price, 15c. each.

Miss Steele reported on behalf of the Herbarium Committee the completion of the work on the herbarium of the late Wm. H. Leggett, and stated that all material received up to date had been mounted and put in order.

The secretary read a letter from Mrs. Gray, acknowledging the receipt of the resolutions of sympathy and condolence from the Club.

Dr. Newberry remarked on the geological history of *Liriodendron*, and exhibited drawings of a new species from the Laramie of Colorado.

The following papers were read as announced:

"A Preliminary Notice of the Pteridophyta Collected by Dr. H. H. Rusby in South America during the years 1885 and 1886." By Mrs. N. L. Britton.

"On a New Variety of *Erythronium*." By E. E. Sterns.

The Rev. Thomas Morong complimented Dr. Rusby on the excellence of his specimens and the number of species of ferns represented in the collection, and gave an outline of his proposed trip to the Argentine Republic and Chili and the headwaters of the Parana and Uruguay rivers.